

IXW-PBX

Programming Guide



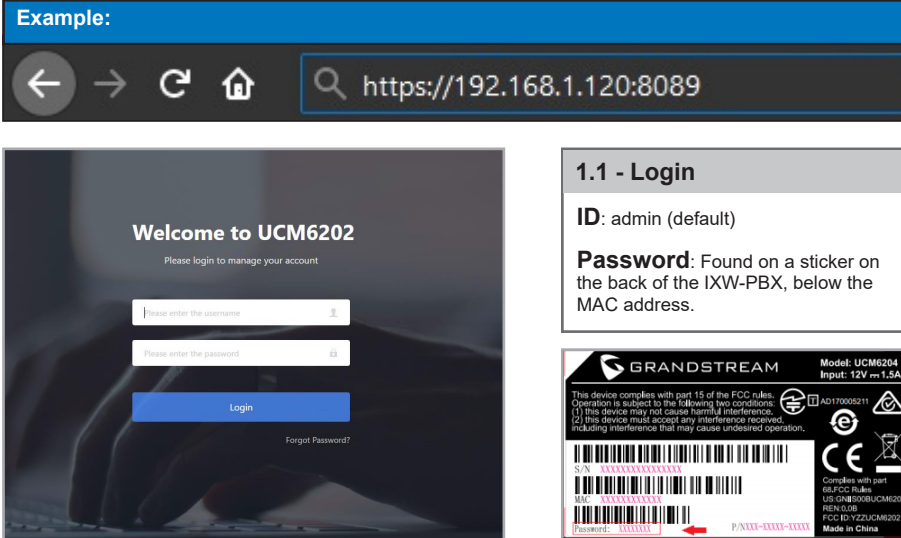
Table of Contents

Page 2	Logging into the IXW-PBX <i>- Where to locate the password for the IXW-PBX, and how to log into the device</i>
Page 2-4	Setup Wizard <i>- Step-by-step instructions for the initial setup of the IXW-PBX</i>
Page 5	SIP Settings <i>- Configure the SIP settings for the IXW-PBX</i>
Page 6	Editing Extensions <i>- Adding IX Series devices to the IXW-PBX</i>
Page 7	VoIP Trunk Settings <i>- Setting up a VoIP Trunk</i>
Page 8	Analog Trunk Settings <i>- Setting up an Analog Trunk</i>
Page 8-9	Registering a Phone Number <i>- Adding a Phone Number to the Support Tool</i>
Page 9	Adding an Outbound Route rule <i>- Creating an outbound route for analog dial out</i>
Page 10	Registering the IXW-PBX <i>- Adding the IXW-PBX to the Support Tool</i>
Page 10	Configuring Grandstream Wave Lite Mobile App <i>- Adding the IXW-PBX to the Support Tool</i>
Page 10	Uploading <i>- Uploading Settings to Stations</i>

Logging into the IXW-PBX

Access the IXW-PBX by entering its IP address and port in a browser. The IP address of the IXW-PBX will be shown on its LCD screen, and the port used is 8089.


Example:



1.1 - Login

ID: admin (default)

Password: Found on a sticker on the back of the IXW-PBX, below the MAC address.



Model: UCM6204
Input: 12V m 1.5A

S/N: XXXXX-XXXX-XXXX
MAC: XXXXX-XXXX-XXXX
Password: XXXXX

Setup Wizard - Change Password

When first logging into the IXW-PBX, you will be prompted to create a new password and enter a valid email address for password recovery.

Change Password

Enter Old Password:

Enter New Password:

Re-enter New Password:

Email Address:

Next Quit

Click Next

Next

Setup Wizard - Network Settings

The network settings for the IXW-PBX will need to be changed in order for it to communicate with IX Series products. Change the Method to “Switch”. The LAN settings will need to match your local network.

Network Settings

Method :

Switch

MTU :

1500

Preferred DNS Server :

LAN

IP Method :

Static

* IP Address :

192.168.1.140

* Subnet Mask :

255.255.0.0

* Gateway IP :

192.168.1.1

* DNS Server 1 :

75.75.75.75

DNS Server 2 :

75.75.76.76

Layer 2 QoS 802.1Q/VLAN Tag :

0

Layer 2 QoS 802.1p Priority Value :

0

Previous

Next

Quit

Click **Next**

Next

Setup Wizard - Time Zone

Change the Time Zone to match the location of the IX Series system. The date and time format can be changed to match your own preference.

Select Time Zone

Time Zone :

GMT-08:00 (US Pacific Time, Los Angeles)

Self-defined Time Zone :

MTZ+6MDT+5,M4.1.0,M11.1.0

Date Format :

mm-dd-yyyy

Time Format :

Use 24-hour Format

Language :

☒ English : en
☐ 中文 : zh

Previous

Next

Quit

Click **Next**

Next

Setup Wizard - Extensions

Extensions are how the IX Series stations are assigned in the IXW-PBX. Once an extension is created the extension number cannot be edited. For this reason, select Disable Extension Range, and set the Create Number to 1. Set the Start Extension to your first station number, and use a custom SIP Password that will be assigned to all extensions.

Extensions

Can only set SIP extensions.

Disable Extension Range : ☒

Start Extension :

Create Number :

SIP Password :

☐ Use Random Password

☒ Use as Password

Previous

Next

Quit

Click **Next**

Next

Setup Wizard - Trunk / Routes

The Trunks / Routes will be assigned in later steps in this guide with more in-depth information. Skip this step by clicking next.

Trunks / Routes

+ Add Existing Outbound Rules

Trunk Type	Trunks	Outbound Rule	Inbound Rule
No Data			

Click **Next**

Next

Setup Wizard - Summary

Review the information from each of the previous steps and click save to move on to the next step.

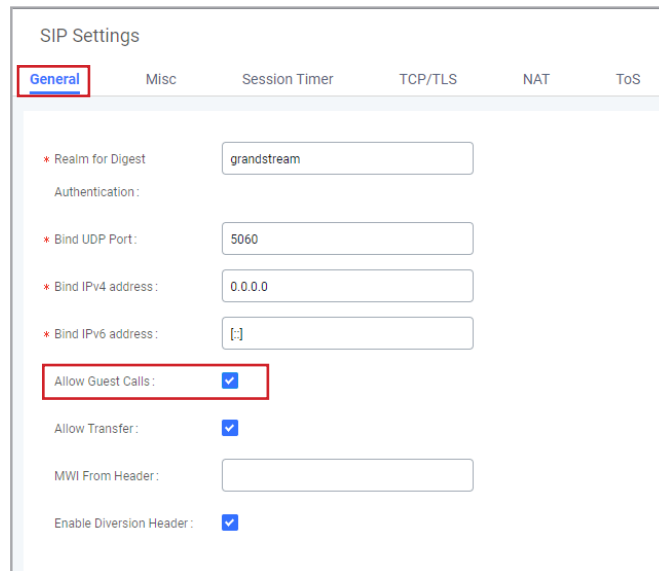
Click **Save**

Save

SIP Settings

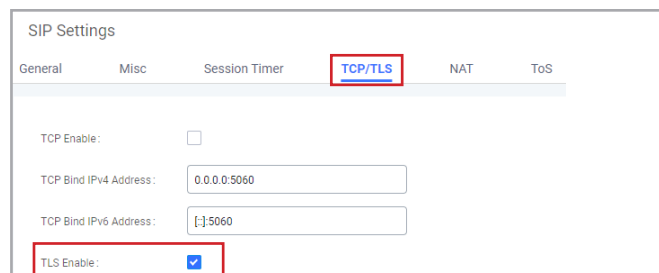
From the menu bar on the left, expand PBX Settings and click SIP Settings. Adjust the following values pictured below.

General Tab



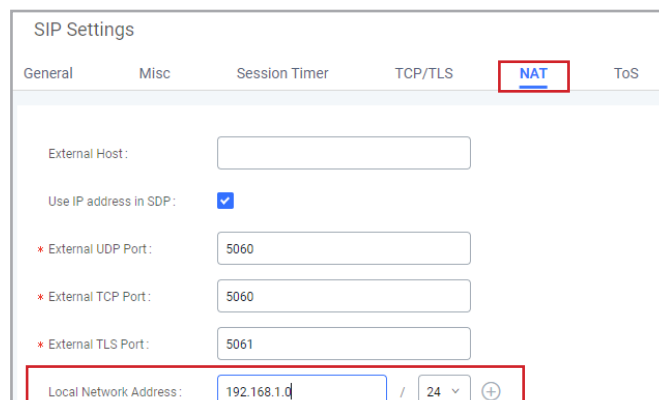
The screenshot shows the 'SIP Settings' window with the 'General' tab selected. The 'Realm for Digest' is set to 'grandstream'. The 'Bind UDP Port' is 5060, 'Bind IPv4 address' is 0.0.0.0, and 'Bind IPv6 address' is [-]. The 'Allow Guest Calls' checkbox is checked and highlighted with a red box. The 'Allow Transfer' checkbox is also checked. The 'MWI From Header' is empty. The 'Enable Diversion Header' checkbox is checked.

TCP/TLS Tab




The screenshot shows the 'SIP Settings' window with the 'TCP/TLS' tab selected. The 'TCP Enable' checkbox is unchecked. The 'TCP Bind IPv4 Address' is 0.0.0.0:5060 and the 'TCP Bind IPv6 Address' is [-]:5060. The 'TLS Enable' checkbox is checked and highlighted with a red box.

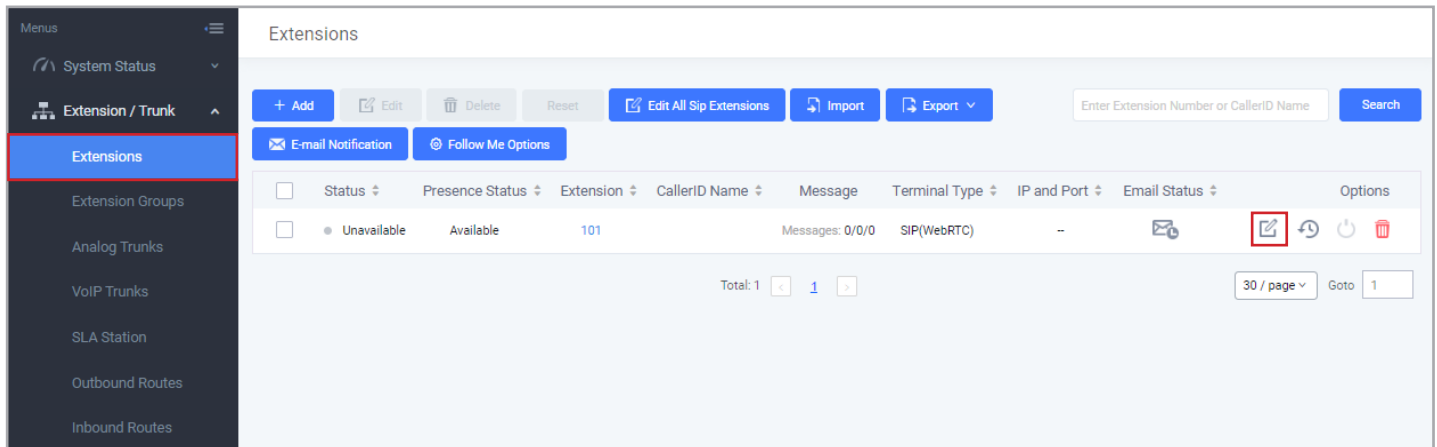
NAT Tab



The screenshot shows the 'SIP Settings' window with the 'NAT' tab selected. The 'External Host' is empty. The 'Use IP address in SDP' checkbox is checked. The 'External UDP Port' is 5060, 'External TCP Port' is 5060, and 'External TLS Port' is 5061. The 'Local Network Address' is 192.168.1.0, highlighted with a red box, followed by a slash, the number 24, and a plus sign in a circle.

Editing Extensions

An extension is necessary for each IX Series station to be registered with the IXW-PBX. The extension number will be assigned to the station in the IX Support Tool in the following steps. To configure this, expand Extension/Trunk and click Extensions. Click  highlighted below to make changes to the existing extension.



Set the **CallerID Number** to match the Station Name in the IX Support Tool for consistency. The SIP/IAX password was assigned in the previous steps. Make note that this password will be needed when registering the IXW-PBX.

Edit Extension: 101 Save Cancel

Basic Settings Media Features Specific Time Follow Me

General

* Extension: 1000 CallerID Number: FrontDesk

* Permission: Local * SIP/IAX Password: Alphone

Voicemail: Enable Local Voicemail AuthID:

Send Voicemail to Email: Default * Voicemail Password: *****

Enable Keep-alive: ☐ Skip Voicemail Password: ☐

Disable This Extension: ☐ Verification:

Emergency Calls CID: Keep Voicemail after Emailing: Default

* Keep-alive Frequency: 60

Enable SCA: ☐

User Settings

First Name: Front Last Name: Desk

Email Address: * User Password: *****

* Language: Default * Concurrent Registrations: 1

Mobile Phone Number:

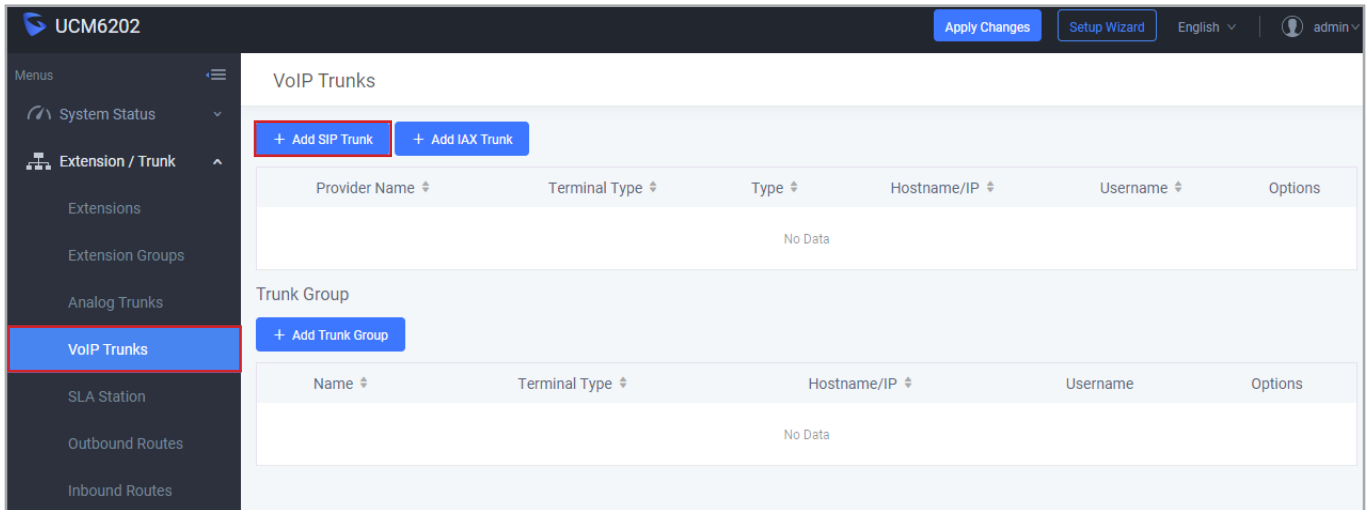
Adding Additional Extensions



Click + Add and copy the configuration above for each additional station to be registered.

VoIP Trunk Settings

The IXW-PBX will allow SIP Trunks to be used for outbound calls. To configure this, expand Extension/Trunk and click VoIP Trunks. At the top of the page click the **Add SIP Trunk** button.

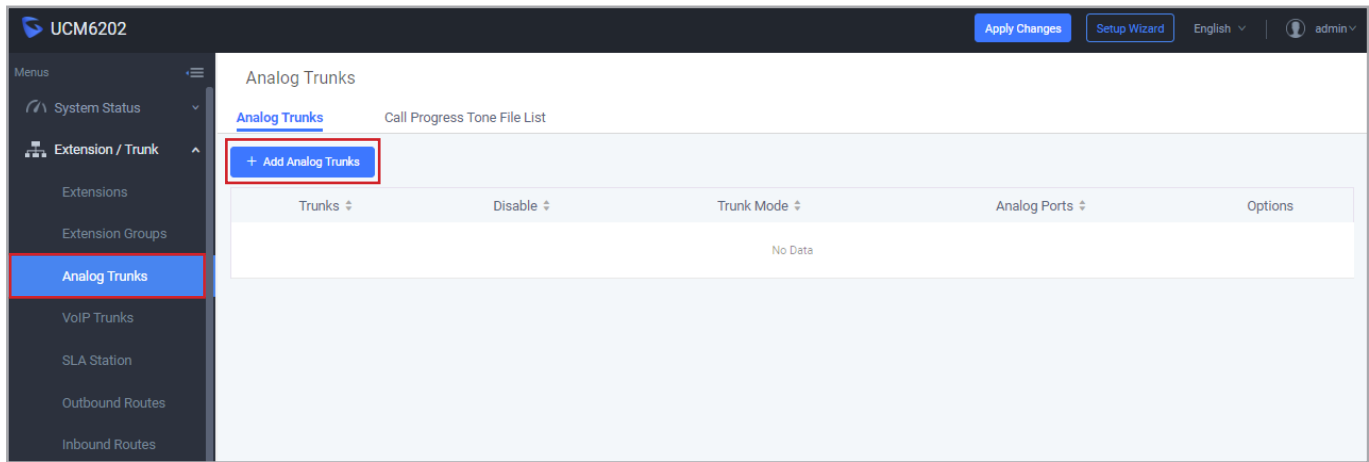


Use the Type drop-down and select **Register SIP Trunk** and enter the **Provider** and **Host Name** of the SIP Trunk service provider. The username and password is also required to create a SIP trunk. Verify this information with the provider of the SIP Trunk.

The screenshot shows the 'Create New SIP Trunk' form. At the top right are 'Save' and 'Cancel' buttons. The form contains several fields and checkboxes. A red box highlights the 'Type' dropdown (set to 'Register SIP Trunk'), the 'Provider Name' field (placeholder: 'Please select a provider'), and the 'Host Name' field. Below these are checkboxes for 'Keep Original CID:', 'Keep Trunk CID:' (checked), 'NAT:', and 'Disable This Trunk:'. The 'TEL URI:' dropdown is set to 'Disabled'. There are checkboxes for 'Need Registration:' (checked) and 'Allow outgoing calls if registration fails:' (checked). At the bottom, another red box highlights the 'CallerID Name:', 'Username:', and 'Password:' fields.

Analog Trunk Settings

The IXW-PBX will also allow for Analog Trunks for outbound calls utilizing a POTS line plugged into one of the FXO Ports on the back of the device. To configure this, expand Extension/Trunk and click Analog Trunks. At the top of the page click the Add Analog Trunks button. Once the Create New Analog Trunks page is open, select a FXO Port and enter a trunk name.



Create New Analog Trunks

Save Cancel

* FXO Port: ☒ 1 ☐ 2

* Trunk Name:

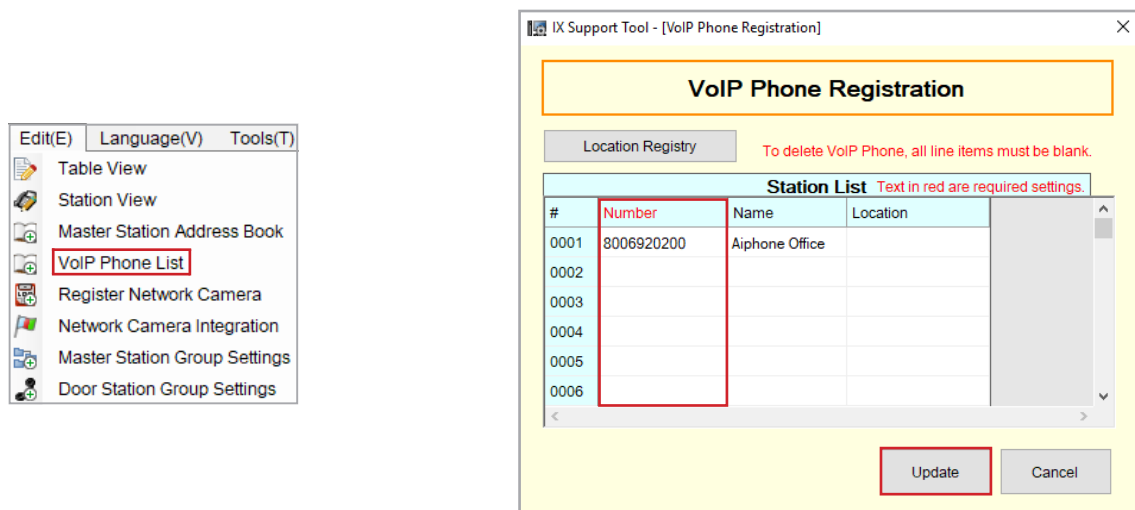
Note:



The FXO Delay(ms) may need to be adjusted to match the quality of the analog line being used for dial-out.

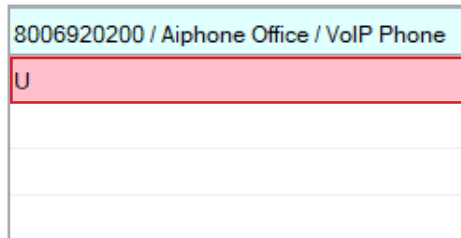
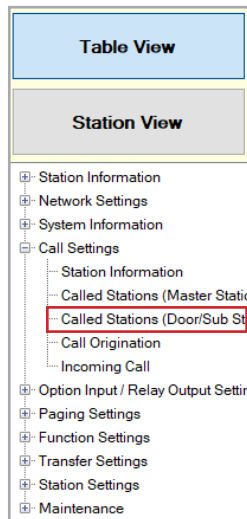
Registering a Phone Number

To call a phone number from an IX Series station using an analog trunk, the phone number will need to be registered as a VoIP Phone in the Support Tool. Open Support Tool and navigate to Edit > VoIP Phone List, and enter the phone number on the next available row.



Registering a Phone Number (cont.)

Now assign the newly registered phone number to the door station that will be placing the call. From the menu on the left, expand Call Settings and click Called Stations (Door/Sub Stations). Scroll the window to the right and locate the registered “VoIP Phone”, and use the drop down box to select **U** in the row of the designated door station.



Click **Update** to save your settings. [Update](#)

Outbound Routes

For a station to call out to the registered phone number, it is required to create an outbound route rule for the analog trunk. Expand Extension / Trunk from the menu on the left and click on Outbound Routes. Once the Outbound Routes page opens click on the Add button.

Create New Outbound Rule Save

* Calling Rule Name: Analog_Dial_Out

* Pattern: xxxxxxxx

Disable This Route: ☐

Password:

Enable Filter on Source Caller ID

Enable Filter on Source Caller ID: ☐

Call Duration Limit

Call Duration Limit: ☐

Main Trunk

* Trunk: AnalogTrunks - Analog

Strip:

Prepend:

Click **Save** Save

For more details about the features and information above, please contact Technical Support.

Registering the IXW-PBX

The IXW-PBX must be registered to the IX Series stations for the stations to call out. From the menu on the left, expand Network Settings and click SIP. Enter the extension number in the ID column, the SIP password in the password column, and the IP address of the IXW-PBX in the IPv4 Address column.

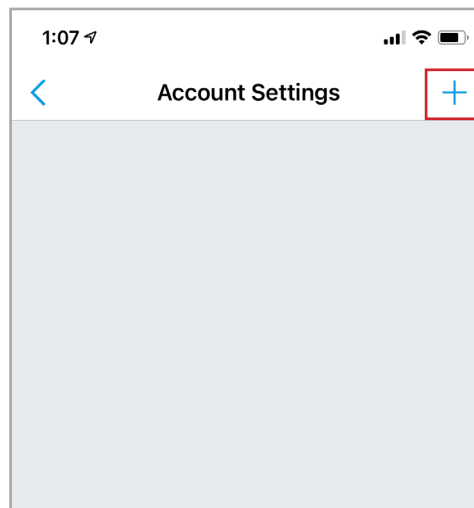
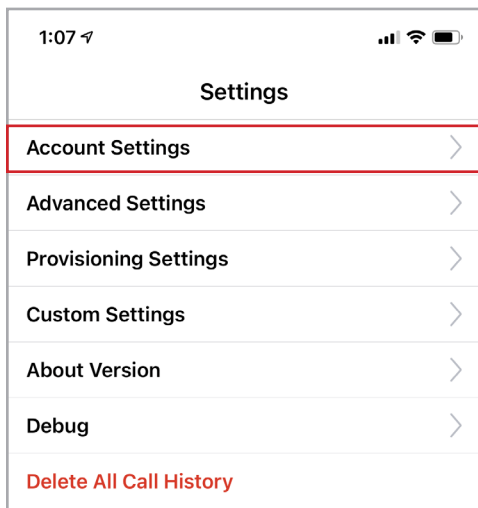
#	Station Information				Network Settings					
	Identification				SIP					
	Number	Name	Location	Station Type	SIP Connections		Primary Server			
					SIP Signaling Port	User Agent	ID	Password	IPv4 Address	IPv6 Address~ Port
0001	101	Front Desk		IX-MV7-*	5060		101	*****	192.168.1.140	5060
0002	102	Security Office		IX-MV7-*	5060					5060

Click **Update** to save your settings. **Update**

Configuring Grandstream Wave Lite

The Grandstream Wave Lite mobile app can be used in conjunction with the IXW-PBX while the mobile device is connected to the same wireless network as the IX Series stations. Each mobile device will need to have Wave Lite downloaded and installed, and then be **registered as an extension** in the IXW-PBX. Follow the steps on page 6 for instructions on adding/editing a SIP extension.

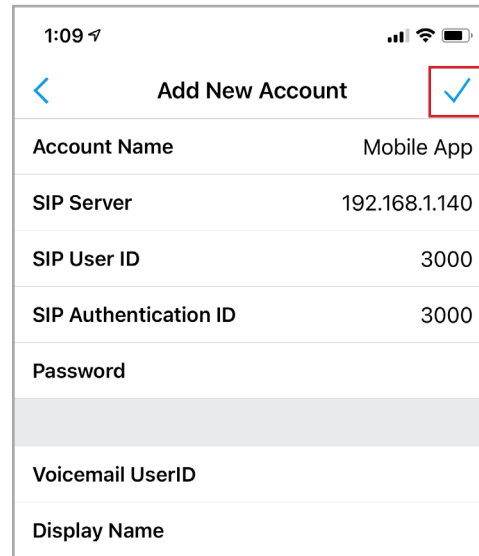
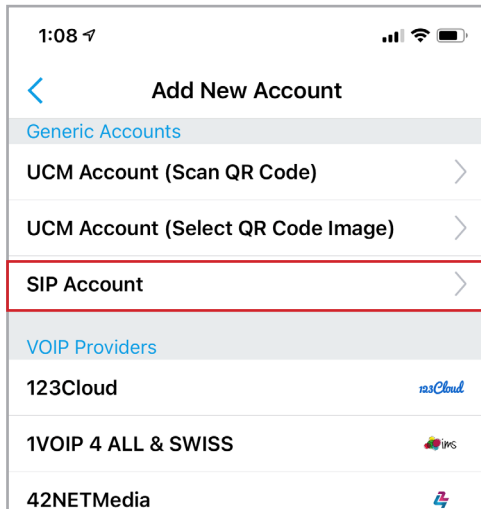
Once these steps are complete, open the Wave Lite application and tap the Settings Icon in the bottom right corner of the screen.



Tap the Account Settings button, followed by the plus icon on the next screen. This will bring up the Add New Account screen.

Configuring Grandstream Wave Lite (cont.)

Select SIP Account as it is being registered with the IXW-PBX as a SIP extension. Then enter the Account Name (Extension Name), SIP Server (IP Address of IXW-PBX), SIP User ID (Extension Number), SIP Authentication ID (Extension Number), and Password (SIP Password). Once completed tap the check mark in the top right corner to finalize the settings.



Follow the steps on pages 8-9 to register the SIP extension in Support Tool for a door or master station to call the new mobile device using Wave Lite.

Uploading the Settings

In this step, upload the newly configured settings to the IX Series stations. To test your system, press the call button on the door station. The phone extension that was programmed to ring should receive the call. Answer it and ensure that you have 2-way communication between the phone extension and the door station.

